BAMx comments dated June 17, 2019
Submitted by email to: regionaltransmission@caiso.com

BAMx Comments on the CAISO's Issue Paper Local Capacity Technical Study Criteria Update

Introduction and Stakeholder Understanding

On May 30, 2019, the CAISO held a web-conference to discuss its issue paper ("Issue Paper" hereafter) regarding updates to its Local Capacity Technical (LCT) study criteria. The Bay Area Municipal Transmission group (BAMx)[1] appreciates the opportunity to comment on the CAISO's Issue Paper on this topic that was posted on the CAISO website on May 23, 2019. The Issue Paper has provided stakeholders with a better understanding of the CAISO's effort to align the LCT Study and the transmission planning criteria. We hope that the CAISO addresses the issues raised by BAMx in the Straw Proposal.

BAMx Suggestions

Update Category Definitions to Align with Current Standards

BAMx understands the desire to update the old references and characterizations to the new references and characterizations to match the NERC and CAISO planning standards. At this point, most all of the stakeholders should be familiar with the P0-P7 contingency references so it would be more convenient to adopt the nomenclature utilized by the NERC and CAISO for planning purposes.

But BAMx believes that now is the time to reassess some issues with regard to the tradeoff of building new transmission versus retaining existing generation. BAMx believes that because of the pressure to reduce the dependence on gas-fired generation, the economics of building new transmission versus retaining existing generation is a very important issue which is affected by changes to the LCT study criteria. So, we suggest below some issues that need to be addressed in an expanded Stakeholder effort.

Update Bulk Electric System (BES) Voltage Level

The Issue Paper states that the "*ISO would like to align the LCT study criteria with current planning practice for the appropriate levels by adjusting performance requirements to align with the ISO planning standards, rather than the NERC mandatory planning standards, for non-BES elements.*" BAMx suggests that the CAISO clarify, and provide additional information on how the CAISO suggests the non-BES facilities should be treated within the LCT studies going forward. Would aligning with the CAISO planning standards entail that overloads on non-BES elements could set the local capacity requirements (LCR)? BAMx suggests the CAISO should provide specific examples of the proposed evaluation of non-BES elements within the Local Capacity Requirements (LCR) studies.

[1] BAMx consists of City of Palo Alto Utilities and City of Santa Clara, Silicon Valley Power.

Economic Impact of Changing LCT Criteria

The Issue Paper states that aligning the LCT criteria with NERC, WECC and CAISO mandatory standards would provide a level playing field between consideration of constructing new transmission and retaining or expanding local resources in order to meet the mandatory standards.[2] BAMx is uncertain whether this is true or not. In order to comprehensively evaluate the tradeoffs, we believe it would be prudent to update the LCR Potential Reduction Study the CAISO performed as part of the 2018-19 TPP, for at least some local areas to illustrate the effect of using the newly proposed LCT criteria. BAMx believes such information is needed to understand the likely economic impacts of changes to the LCR criteria.

Given the uncertainty associated with the impact of changing LCT criteria on LCR procurement and cost, BAMx suggests an illustrative update to last year's LCR studies (at least for a few local areas) that compares the results of assuming two sets of criteria 1) the full set of P1-P7 contingencies and 2) a subset of all contingency categories, including one set of contingencies which are utilized by the CAISO operators in real-time system monitoring and operations[3]. The results of the analysis should be presented for stakeholder input.

Sensitivity Analyses as Information Only and the CPUC Forum

Additionally, BAMx believes LCR study is extremely important to provide guidance and support for CPUC's procurement efforts. The CPUC final decision (D. 06-06-064) on LCR for 2007 was issued on June 29, 2006. For Reliability Service Options for 2007, the CPUC adopted Option 2, NERC Performance Criteria Category C. It stated the following.

> "Given the reduced risk of interruptions expected under Option 2, we consider the required procurement of an additional 5% of needed capacity to be reasonable. We make this reliability determination for 2007 only. While we expect to apply Option 2 in future years in the absence of compelling information demonstrating that the risks of a lesser reliability level can reasonably be assumed, we nevertheless leave for further consideration in this proceeding the appropriate reliability level for Local RAR for 2008 and beyond."

BAMx notes that although it was anticipated in the original 2006 decision that the reliability criteria determining the LCR levels would be revisited in the future, it does not appear that changes in LCR levels has not happened for more than a decade. We believe that reviewing the LCT criteria is long overdue. The CAISO proposed changes as part of this initiative provides an opportune time for the consideration of the rate impact of setting various levels of LCT criteria. In the spirit of proper coordination between agencies, the decision to change the criteria needs to be also addressed as part of the CPUC Resource Adequacy (RA) proceeding (R.17-09-020).

[2] Issue Paper, p.5.
[3] Per CAISO Procedure 3100, the network is monitored and operated for single contingencies and every credible multiple contingency as identified in Appendix 3100B.

Provide Additional Details in Regard to the RMR Contracts

The Issue Paper states "*the ISO still needs to meet the mandatory standards and therefore will have to rely more and more on its Reliability Must Run (RMR) contract to maintain in-service old and potentially inefficient resources that want to retire and are not needed for RA*" as one of the justifications for modifying the LCT criteria to include a full set of NERC, WECC, and CAISO mandatory planning standards. Based on BAMx's preliminary research, it is not clear how utilizing more stringent LCT criteria will reduce the need for RMR contracts. We are aware of projects like Yuba City Energy Center[4] and Metcalf Energy Center[5] that were designated as RMR in 2017, but were identified to be needed as local capacity resources under the existing LCT criteria. BAMx urges the CAISO to provide examples and details of the past RMR designations that were triggered by mandatory reliability standards, while those resources may not necessarily have been identified to be needed to meet LCR needs based upon the existing LCT study criteria. A full explanation with respect to such examples should help stakeholders better understand the likely effects of the changes being proposed.

Alignment of the LCT criteria with NERC, WECC and CAISO Mandatory Standards

The Issue Paper presents two different options for aligning the LCT criteria with NERC, WECC and ISO Mandatory standards. The first is to "Fully align the LCT criteria with NERC, WECC and ISO mandatory standards", where the second option is to "Maintain certain differences between the NERC, WECC and ISO mandatory standards and the LCT criteria." The CAISO asserts that fully aligning the LCT criteria to the planning standards "would provide a level playing field between consideration of transmission and resources in order to meet the mandatory standards". BAMx would like to point out that the LCT analysis and the TPP analysis are fundamentally different. For example, the reliability assessment under the Transmission Planning process (TPP) allows for Load shedding as a viable mitigation for many local areas. Furthermore, Special Protection Schemes/Remedial Action Schemes (SPS/RAS) solutions or system readjustments are allowed for higher level contingencies under the CAISO planning standards. However, since the main purpose of the LCT studies is to identify the LCR requirements, using the same contingencies in the LCR studies would probably trigger higher LCR requirements. If the same relatively inexpensive mitigations are not allowed in LCR studies, it would likely drive up the LCR requirements and therefore would likely result in additional costs to the ratepayers.

BAMx identified a couple of examples that illustrate that modeling higher-level contingencies to identify LCR needs leads to procurement of local resources even when they are not required to meet the mandatory reliability standards or to provide operational reliability. One example involving the existing LCT criteria is in the Big Creek-Ventura area, where the overall LCR need

[4] See "Decision on request for reliability must-run designations," Neil Millar, Executive Director, Infrastructure Development, Board of Governors Meeting, General Session, March 15-16, 2017, p.4
[5] "Current local capacity requirements in the South Bay-Moss Landing sub-area of the Bay Area local area are met with the Metcalf generation as a part of the generation in the area." See "Metcalf Energy Center Retirement Assessment," Stakeholder Call, September 26, 2017, pp.3-4.

for 2024 identified in the latest LCT study is 2,577MW.[6] The LCR value is driven by an overload on Sylmar-Pardee #1 or #2 230kV circuits following the overlapping outage of Lugo-Victorville 500kV line and the remaining Sylmar-Pardee 230kV circuit[7]. This outage could be mitigated via *Operating Procedure 7680*, and therefore does not violate any of the mandatory NERC, WECC or CAISO reliability standards. However, the LCR procurement in 2024 will be based on the 2,567MW value based on the existing LCT criteria that do not take into consideration any operating procedures that can be used for mitigation.

BAMx found another example that illustrates that expanding the existing LCT criteria, where a low-cost mitigation measure could be more appropriate, could lead to greater local resource procurement and in turn higher local RA prices. Based on the latest 2020 & 2024 Final LCR results, the most limiting facility for the San Jose Subarea is the "El Patio-San Jose 'A' 115kV line" for the loss of "Stone-Evergreen-Metcalf" & "Metcalf-Evergreen #1 115kV" circuits[8]. The transmission planning analysis showed that P2 outage (Bus-Tie Breaker) of "Metcalf 115kV Section 1E & 2E" produces the largest overload on the El Patio-San Jose 'A' 115kV line circuit[9]. This type of overload could potentially lead to higher LCR requirements in the San Jose sub-area if P2 contingencies were to be included in LCT criteria. But there could be low-cost mitigation to protect against this type of contingency. BAMx offers the above two examples to illustrate the CAISO is dealing with a complicated issue probably involving significant cost tradeoffs.

BAMx appreciates the opportunity to comment on the Issue Paper and acknowledges the significant efforts of the CAISO to develop this material. Based upon our above comments, we urge the CAISO to take the time to evaluate the total cost impacts of each of the alternatives suggested by the CAISO for changes to the LCT criteria before a decision is made.

If you have any questions concerning these comments, please contact Paulo Apolinario (papolinario@svpower.com or (408) 615-6630).

[6] 2024 Local Capacity Technical Study, Final Report and Study Results, May 1, 2019, p.4.
[7] CAISO *2020 and 2024 Final LCR Results Big Creek-Ventura Area* Presentation, April 10, 2019, Slide #11
[8] CAISO *2020 and 2024 Final LCR Results Greater Bay Area* Presentation, April 10, 2019, Slide #11.
[9] Appendix C of the Board Approved 2018-2019 Transmission Plan